

WHAT IS CLAIMED IS:

1. A gas turbine set, with a cooling air system through which at least one cooling air mass flow flows from a compressor to thermally highly loaded components of the gas turbine set, wherein means for increasing the pressure of flowing cooling air are arranged in a cooling air duct of the cooling air system, the means for increasing the pressure are ejectors operable with a working fluid, wherein the working fluid mass flow is less than 20% of a driven cooling air mass flow.

2. The gas turbine set according to claim 1, wherein the working fluid is an air mass flow having a total pressure higher than the pressure of the driven cooling air mass flow.

3. The gas turbine set according to claim 1, wherein the working fluid flow is an air mass flow branched off from the compressor at a point of higher pressure.

4. The gas turbine set according to claim 1, wherein the working fluid is a steam mass flow.

5. The gas turbine set according to claim 1, wherein means for adjusting the working fluid mass flow are arranged in a supply duct for the working fluid.
6. The gas turbine set according to claim 1, wherein the gas turbine set is a gas turbine set with sequential combustion.
7. The gas turbine set according to claim 1, wherein the gas turbine set is equipped with a high pressure cooling system and a low pressure cooling system, the high pressure cooling system being supplied from one of the end stages of the compressor, and the low pressure cooling system being supplied from an intermediate stage of the compressor.
8. The gas turbine set according to claim 7, wherein an ejector is arranged in the low pressure cooling system and is operable with a partial flow of the cooling air from the high pressure cooling system as working fluid.
9. The gas turbine set according to claim 7, wherein the high pressure cooling system is connected to a first combustor and a first turbine of a gas turbine set with sequential combustion, and the low pressure cooling system is connected to a second combustor and a second turbine of the gas turbine set.

10. The gas turbine set according to claim 1, wherein the air mass flow of the working fluid is less than 10% of the driven mass flow.

11. The gas turbine set according to claim 1, wherein the air mass flow of the working fluid is less than 5% of the driven mass flow.